CLAIMS:

1. A method for encapsulating media packets having data therein into network streams of media data, comprising:
providing base-layer media packets corresponding to a base layer stream of the network streams, the base layer stream comprising network packets;
providing enhancement-layer media packets corresponding to an enhancement layer stream of the network streams, the enhancement layer stream comprising network packets,
wherein a one-to-one correspondence exists between the base-layer media packets and the enhancement-layer media packets;
encapsulating the base-layer media packets into the network packets of the base layer stream, wherein each network packet of the base layer stream includes a header field, and wherein each network packet of the base layer stream includes one, and no more than one, corresponding base-layer media packet; and
encapsulating the enhancement-layer media packets into the network packets of the enhancement layer stream, wherein each network packet of the enhancement layer stream includes a header field, wherein a first portion and a second remaining portion of any enhancement-layer media packet may be respectively included in successive network packets of the enhancement layer stream in order to have each network packet of the enhancement layer stream filled to a constant number of bits NE that does not exceed a maximum number of bits NEMAX, subject to the last network packet of the enhancement layer stream being required to be filled to only as many bits as is necessary to include the last enhancement-layer media packet of the enhancement-layer media packets.

2. The method of claim 1, wherein a packet structure of the network streams conforms to the Real-Time Protocol (RTP) standard published as Request For Comments (RFC) 1889 by the Internet Engineering Task Force (IETF).

3. The method of claim 1, wherein NE = NEMAX.

4. The method of claim 1, wherein NE < NEMAX.

5. The method of claim 1, wherein the base-layer media packets are base-layer video packets, wherein the enhancement-layer media packets are enhancement-layer video packets, and wherein the media data is video data.

6. The method of claim 1, wherein the base-layer media packets are base-layer audio packets, wherein the enhancement-layer media packets are enhancement-layer audio packets, and wherein the media data is audio data.

7. The method of claim 1, wherein data content of the base-layer media packets is in a compressed format, wherein data content of the enhancement-layer media packets is in a compressed format, and wherein the media data is in a compressed format.

8. The method of claim 1, wherein data content of the base-layer media packets is in an uncompressed format, wherein data content of the enhancement-layer media packets is in an uncompressed format, and wherein the media data is in an uncompressed format.

9. The method of claim 1, wherein the base-layer media packets and the enhancement-layer media packets are variable length packets.

10. The method of claim 1, wherein the base-layer media packets and the enhancement-layer media packets are constant length packets.

11. The method of claim 1, wherein the base-layer media packets are variable length packets, and wherein the enhancement-layer media packets are constant length packets.

12. The method of claim 1, wherein the base-layer media packets are constant length packets, and wherein the enhancement-layer media packets are variable length packets.

13. The method of claim 1, wherein the header field included within each network packet of the base layer stream has a variable length, and wherein the header field included within each network packet of the enhancement layer stream has a variable length.

14. The method of claim 1, wherein the header field included within each network packet of the base layer stream has a first constant length, and wherein the header field included within each network packet of the enhancement layer stream has a second constant length.

15. The method of claim 14, wherein the first constant length equals the second constant length.

16. The method of claim 14, wherein the first constant length differs from the second constant length.

17. Network streams of media data, comprising:
a base layer stream comprising network packets, wherein each network packet of the base layer stream includes a header field, and wherein each network packet of the base layer stream includes one, and no more than one, corresponding base-layer media packet having data therein; and
an enhancement layer stream comprising network packets, wherein each network packet of the enhancement layer stream includes a header field, wherein the network packets of the enhancement layer stream include enhancement-layer media packets having data therein, wherein a one-to-one correspondence exists between the base-layer media packets and the enhancement-layer media packets, wherein a first portion and a second remaining portion of any enhancement-layer media packet may be respectively included in successive network packets of the enhancement layer stream in order to have each network packet of the enhancement layer stream filled to a constant number of bits NE that does not exceed a maximum number of bits NEMAX, subject to the last network packet of the enhancement layer stream being required to be filled to only as many bits as is necessary to include the last enhancement-layer media packet of the enhancement-layer media packets.

18. The network streams of claim 17, wherein a packet structure of the network streams conforms to the Real-Time Protocol (RTP) standard published as Request For Comments (RFC) 1889 by the Internet Engineering Task Force (IETF).

19. The network streams of claim 17, wherein NE = NEMAX.

20. The network streams of claim 17, wherein NE < NEMAX.

21. The network streams of claim 17, wherein the base-layer media packets are base-layer video packets, wherein the enhancement-layer media packets are enhancement-layer video packets, and wherein the media data is video data.

22. The network streams of claim 17, wherein the base-layer media packets are base-layer audio packets, wherein the enhancement-layer media packets are enhancement-layer audio packets, and wherein the media data is audio data.

23. The network streams of claim 17, wherein data content of the base-layer media packets is in a compressed format, wherein the content of the enhancement-layer media packets is in a compressed format, and wherein the media data is in a compressed format.

24. The network streams of claim 17, wherein data content of the base-layer media packets is in an uncompressed format, wherein the content of the enhancement-layer media packets is in an uncompressed format, and wherein the media data is in an uncompressed format.

25. The network streams of claim 17, wherein the base-layer media packets and the enhancement-layer media packets are variable length packets.

26. The network streams of claim 17, wherein the base-layer media packets and the enhancement-layer media packets are constant length packets.

27. The network streams of claim 17, wherein the base-layer media packets are variable length packets, and wherein the enhancement-layer media packets are constant length packets.

28. The network streams of claim 17, wherein the base-layer media packets are constant length packets, and wherein the enhancement-layer media packets are variable length packets.

29. The network streams of claim 17, wherein the header field included within each network packet of the base layer stream has a variable length, and wherein the header field included within each network packet of the enhancement layer stream has a variable length.

30. The network streams of claim 17, wherein the header field included within each network packet of the base layer stream has a first constant length, and wherein the header field included within each network packet of the enhancement layer stream has a second constant length.

31. The network streams of claim 30, wherein the first constant length equals the second constant length.

32. The network streams of claim 30, wherein the first constant length differs from the second constant length.